



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/031,408

01/18/2002

Kenji Tsukada

Q68137

2132

7590

09/22/2004

Sughrue Mion  
2100 Pennsylvania Avenue NW  
Washington, DC 20037-3202

EXAMINER

LIANG, LEONARD S


ART UNIT

PAPER NUMBER

2853

DATE MAILED: 09/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<p align="center"><b>Office Action Summary</b></p>	<b>Application No.</b> 10/031,408	<b>Applicant(s)</b> TSUKADA ET AL.	
	<b>Examiner</b> Leonard S Liang	<b>Art Unit</b> 2853	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 22 June 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-56,61,62 and 68-70 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-56,61,62 and 68-70 are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>04/02/04, 02/17/05, 02/03/03, 09/02/04</u> | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Election/Restrictions***

This application contains claims directed to the following patentably distinct species of the claimed invention:

Species I directed to detecting an ink consumption condition (claims 2-7).

Species II directed to executing a consumption condition redetection step (claims 15-16).

Species III directed to a cumulation of operations (claims 23, 24, and 29-30; NOTE: claim 23 cannot be dependent on itself and claims 23 and 24 are currently duplicate claims)

Within Species I, there is an additional species requirement:

- Species IA directed to claim 2
- Species IB directed to claim 3
- Species IC directed to claim 4
- Species ID directed to claim 5
- Species IE directed to claims 6-7

All of these above subspecies represent mutually exclusive cases defining different conditions of detecting the ink consumption condition.

Within Species II, there is an additional species requirement:

- Species IIA directed to claim 15
- Species IIB directed to claim 16

All of the above subspecies represent mutually exclusive cases defining different conditions of executing the consumption condition redetection step.

Within Species III, there is an additional species requirement:

- Species IIIA directed to claims 24-24
- Species IIIB directed to claim 29
- Species IIIC directed to claim 30

All of these above subspecies represent mutually exclusive cases defining different definitions of the cumulation of operations.

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, claim 1 is generic.

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the

Art Unit: 2853

examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

The examiner would like to sincerely apologize for not including this species election in the previous election/restriction requirement. The examiner was previously focused on the independent claims and did not notice the species election requirement for the dependent claims. However, the election requirement made in this action is considered proper.

In regards to the applicant's arguments filed on 08/22/04 that the previous restriction requirement was improper because the search and examination could be made without serious burden, the examiner replies that there is a burden to searching and examining all the claims. While it is true that the examiner did previously issue two Office Actions, these actions merely helped confirm to the examiner the burden of successfully and accurately examining all the claims without the restriction requirement, especially in light of the applicant's amendments to the claimed invention (which were not present in the examiner's initial office actions). Furthermore, the concern of burden aside, the restriction requirements made in the previous action were proper to make, and are thus considered upheld.

Finally, the examiner would like to point out to the applicant a number of concerns. First, the applicant previously amended the claims to include the "concept of vibration under free oscillation". However, the examiner cannot find any disclosure of the concept of "free oscillation" in the specification. The applicant uses a certain limited concept of "free oscillation" to argue the art used in the prior rejection. The examiner requests that the applicant point out where in the specification "free oscillation" is defined to carry the same limitations used in the previous argument.


Also, the examiner has reviewed the multiple Information Disclosure Statements disclosed by the applicant. However, the examiner cannot find any copies of the Non Patent Literature Documents cited by the applicant in the IDS of 09/29/03. The applicant is required to provide these foreign references.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leonard S Liang whose telephone number is (571) 272-2148. The examiner can normally be reached on 8:30-5 Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Meier can be reached on (571) 272-2149. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

lsl LSL

  
LAMSON NGUYEN  
PRIMARY EXAMINER  
09/24/07